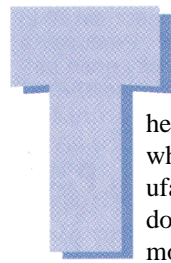


EXPLORING

Value-added options

OPPORTUNITIES IN MOULDINGS AND MILLWORK



he millwork industry, which includes the manufacture of doors, windows, stair parts, blinds, mouldings, picture frame material, and assorted trim, can be a lucrative value-added opportunity for sawmills. Those entering the value-added millwork market often find that it is a great opportunity to generate greater profits from upper grades and utility species, such as yellow poplar. In the past, approximately 75 percent of mouldings and millwork were made from softwoods, while the rest were made from hardwoods. However, this picture has been changing due to old-growth harvesting restrictions in the Pacific Northwest. More and more opportunities are being created for Eastern hardwoods.

The predominant millwork softwood species include ponderosa pine, Douglas fir, Southern pine, true firs, and Eastern white pine. Red oak and, increasingly, yellow poplar are the primary hardwoods used in this market along with basswood and cottonwood. An estimated one billion board feet of lumber was used in the millwork and moulding industry in 1990. The U.S. Department of Labor 1990

report indicates nearly 3,500 companies manufactured mouldings and millwork.

Red oak is often used for high-valued mouldings and stair treads, risers, rails, and turnings. Other fine hardwood species can also be used for these products. Utility species such as yellow poplar, basswood, and cottonwood are used in moulding, picture frame material, and general millwork. In some cases, full length lumber strips are wood grained, painted, or foiled and sold. The strips can also be finger jointed to full pieces and then wood grained, painted, or foiled. The same species are also used for window parts. The largest volume of moulding and millwork is processed from the 5/4" and 6/4" sawn lumber, although 4/4" is also used for mouldings. The 5/4" and thicker dimensions allow for resawing at the plant into two or three pieces before they are further manufactured or used directly in stair treads, rails, and turnings.

According to the Wood Components Manufacturers' Association's *Rules and Specifications for Dimension and Woodwork*, lumber destined for use in moulding and millwork must be dried to a mois-

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ture content of no more than seven percent, according to accepted methods, depending on species and thickness. Specifications for hardwood and pine grades and tolerances are also covered.

A sawmill might produce what the WCMA refers to as rough dimension or semi-machined dimension products, depending upon available equipment or funds available for capital improvements. Obviously, the more machining involved, the larger the profit margin should become. Blanks cut and ripped to specific sizes and rough-surfaced on two or more sides to a nominal size are termed rough dimension. If finish surfacing, moulding, turning, tenoning, flat-sanding, equalizing, trimming, mitering, or other processes are utilized, the products are termed semi-machined. Defects can be eliminated from blanks by processing them through a crosscut saw operation, and short blanks can be finger jointed to create needed lengths and face-glued to create desired thicknesses.

Sawmills with kiln drying capabilities seriously interested in serving the millwork and moulding markets will probably need to add some equipment, including a planer, rip **saw**, crosscut saws, **belt** sander, and moulder. It may also need some clamp carriers for edge gluing. A mill can utilize lower grades of lumber and short length lumber by finger jointing. Finger jointed millwork is used traditionally for painted stock and trim. For this type of millwork, the sawmill will need a finger jointer and glue line.

It is very important to maintain tight quality control for mouldings and millwork. Among the factors important in producing quality millwork and moulding are proper moisture content, acceptable raw materials, rate of feed of the moulder, number and speed of cutter heads, sharpness of the knives on the cutterheads, knife cutting edge bevel, thickness of the cut, and butterhead knife angles. Maintaining the knives anti cutterheads is of primary importance in producing quality millwork and mouldings. Many types of mill-

work are sanded after the moulding process for better finishing.

As with many wood products, this industry has seen increased competition from substitute products and international markets in recent years. Extruded plastic and plastic-wood composites have entered the moulding market. Radiata pine from New Zealand and Chile also have captured market share from traditional species. The sawmill wanting to enter this market needs to produce a high quality product to separate itself from this competition and might benefit from serving its regional area market.

Further information about markets can be obtained from the Wood Moulding and Millwork Producers Association in Woodland, California (916) 661-9591; the Architectural Woodwork Institute in Centerville, Virginia (301) 953-7264; and the Wood Component Manufacturers Association in Marietta, Georgia (770) 565-6660. The WCMA publishes a set of rules and specifications that includes information on hardwood interior trim, moulding, stair treads, and risers.

As sawmills search for ways to increase the value of their lumber, the demand for moulding and millwork offers yet another opportunity to further process wood products. It is particularly well-suited as a niche for lower grades and short length lumber which can be finger jointed. As with any new venture, the mill will benefit from exploring the needs of potential customers first, and plan manufacturing adjustments accordingly.

Editor's Note: Faculty at the Center for Forest Products Marketing at Virginia Polytechnic Institute and State University in Blacksburg, Virginia are taking a look at a variety of value-added options for today's forest products industry through a series of features in SOUTHERN LUMBERMAN. Bob Smith is an assistant professor and extension specialist in forest products marketing at Virginia Tech. Phil Araman is project leader for the USDA Forest Service Southern Research Station located at Virginia Tech. □